longitudinal studies on the natural history of anal, penile, and oropharyngeal cancers. The objective of this paper is the synthesis of the totality of evidence on anal, penile, and oropharyngeal cancers for the purpose of parameterizing decision analytic modeling. Following the known natural history of cervical carcinogenesis, our goal is to estimate the rates of transition from HPV infection to precancer, the rate of precancer clearance, and the rate of progression of precancer to cancer. **METHODS:** We conducted a systematic review of the literature to identify all articles with longitudinal data on the natural history of anal, penile, and oropharyngeal cancers. Including those studies that report quantifiable evidence, we conduct a meta-analysis on the core parameters. The review was performed as per the methods recommended by the Cochrane Collaboration. **RESULTS:** Using PubMed, we identified 605 articles relevant to the anal site, 540 articles for the penile site, and 267 on the oropharyngeal site. However, systematic review resulted in only 9 studies, all of which pertained to anal precancer/cancer. Given the available data, we estimated the annual rates of precancer clearance and progression to be 11.4% (8.34%, 14.55%) and 2.18% (0.92%, 3.47%), respectively. **CONCLUSIONS:** Decision analytic models provide a framework for formulation of vaccination policies, incorporating all available evidence. This review summarizes the totality of evidence on HPV and these three cancers to inform health policy, specifically policies concerning male vaccination against papillomavirus (MVP).

PCN42

BUDGETARY IMPACT OF METASTATIC RENAL CELL CARCINOMA (MRCC) TREATMENT ON THE COLOMBIAN GENERAL HEALTH SOCIAL SECURITY SYSTEM (SGSSS)

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OBJECTIVES: Medical treatment for mRCC during 2002 represented around 4% of the resources designed for cancer treatment in Colombia; a local study has shown that Sunitinib (SU) was the most cost-effective medication for first-line treatment of mRCC. We evaluated the budgetary impact of including SU as choice for first-line treatment of mRCC compared to the current treatment being offered in Colombia (Interferon-á (IFN), Bevacizumab+IFN and Sorafenib). **METHODS:** Sunitinib's budgetary impact was estimated including mRCC patients which were candidates to receive first-line treatment under the SGSSS, using a 5-year time horizon. A Markov model was developed to predict costs simulating disease progression. Data regarding frequency of use and health service cost units consumed was taken from a series of 24 patients treated in four different cities. Service costs corresponded to the average value billed by the HMOs, calculated from 33 sources of information which were representative of the country's market. The 5-year projected profile for the current treatment of patients suffering from mRCC was estimated starting from each medication's market share and then compared to a scenario of changing Sunitinib's share to being 100%. The measures of effectiveness applicable for the projection were taken from previously-published clinical trials. A One-way sensitivity analysis was conducted for validating the model's robustness and costs are shown in Colombian pesos (Col$) (Exchange rate 1 USD = 1966.26 Col$). **RESULTS:** The total budgetary impact of SU as first-line treatment for mRCC represented a saving for the Colombian SGSSS of Col$ 2,038,197,489 during 2009, Col$ 2,215,421,548 in 2010, Col$ 2,068,559,499 in 2011, Col$ 1,923,678,137 in 2012 and Col$ 1,840,110,375 in 2013. This would represent an overall saving of Col$ 10,085,967,048 for the next 5-years. **CONCLUSIONS:** Including SU as the option of choice for first-line treatment of mRCC in the Colombian SGSSS would be favorable and cost-saving.

PCN43

THE COST-EFFECTIVENESS OF HUMAN PAPILLOMAVIRUS DNA TESTING FOR CERVICAL CANCER: A SYSTEMATIC REVIEW OF THE LITERATURE

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OBJECTIVES: To assess the current literature on the cost-effectiveness of HPV DNA testing (HPVt) a) as an alternative to conventional cytology and b) to triage equivocal cytology results. **METHODS:** Studies are included if they provide cost-effectiveness figures for HPVt in relation to no screening or conventional cytology, are in English, based on a sample drawn from a developed market economy and were published after 2002. **RESULTS:** Eleven articles matching the search criterion were found. Though time horizons and costs that are included vary, HPVt is generally found to be cost-effective for older women. Based on a five year screening interval, using HPV DNA testing to triage atypical squamous cells of undetermined significance is estimated to cost between about $2,900 to $33,000 per life year saved. **CONCLUSIONS:** HPVt may be a cost-effective screening tool for cervical cancer.

PCN44

PHARMACOECONOMICAL ASPECT OF ONCOLOGICAL THERAPY

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OBJECTIVES: In current era the costs of the health keeping are increasing, therefore the pharmacoeconomic has determing role. Analysis includes all stages of health keeping , but spotlights are drug costs. Selection of drugs according general criteria helps to save public finance and allows it better utilization. **METHODS:** Valuation of utilization of drugs in oncological practice is based on data from the State Institute for Drug Control in Slovakia which have been evaluated for time period 10 years. Data from the Public Health Insurance, which consist of drug costs, costs on diagnostic and therapy of oncological diseases, are attached to the former data. **RESULTS:** Public Health Insurance invested €0.19 mld on the therapy of the patients with oncological disease, which presented 10% from all costs on health keeping. Drugs represented about 38% , hospitalization represented 28%, costs of diagnostic represented 15% and ambulation health keeping represented 14%. But costs on ambulation health keeping have increased more than 28%, drug costs more than 15% and diagnostic costs more than 13%. According these data the most expensive diagnosis are breast cancer, colorectal cancer and the cancer of lungs. **CONCLUSIONS:** Health Insurances as financial institutions play the most important role in payment of complex therapy of oncological patients. Because of new technology on diagnostic and therapy in oncology, economic value of costs is increasing. Costs of modern oncological therapy per one patient are more than approximately €1000.

PCN45

PHARMACOECONOMIC EVALUATION OF THE USE OF SOMATOSTATIN ANALOGS HANDLING THE ASSOCIATED SYMPTOMS OF CARCINOID SYNDROME

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OBJECTIVES: There is a group of neoplasia that secretes vasoactive peptides causing carcinoid syndrome. Surgical treatment is the election, however, if after surgery a residual tumor is maintained, the use of somatostatin analogs: lanreotide Autogel® y octreotide, is the treatment to follow. The objective of this research paper is to evaluate which of the somatostatin analogs is the most effective in the symptomatic control of carcinoid syndrome, associated with the lowest cost. **METHODS:** Cost minimization analysis from an institutional perspective was estimated, considering only direct medical costs for a one year temporary horizon, using a decision tree model. Univariate sensitivity and probability analysis was carried out for this purpose. Costs were estimated using prices of 2008 and are expressed in US dollars (exchange rate of 11.14 pesos/ 1 US dollar). **RESULTS:** According to the model, 41.3% of patients would achieve control of their symptomatology either with Lanreotide Autogel®, as with octreotide, when adjusting the reported efficacy in the literature by the survival rate of one year for this illness. Treatment with Lanreotide Autogel® implies the lowest average cost per patient with carcinoid syndrome: $15,317.18 followed by the treatment with octreotide with a cost of $19,231.42. Sensitivity analyses show that lanreotide would support the treatment with the lowest cost, which would make it the dominant treatment or at least the treatment above the efficiency line. **CONCLUSIONS:** Lanreotide Autogel® is the treatment that minimizes attention cost of carcinoid syndrome, from the institutional perspective within the Mexican context.

PCN46

PHARMACOECONOMIC EVALUATION OF SUNITINIB MALATE FOR FIRST-LINE TREATMENT OF METASTATIC RENAL CELL CARCINOMA IN MEXICO

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OBJECTIVES: Metastatic Renal cell carcinoma (mRCC), the most prevalent kidney cancer, is a rare malignancy with a poor prognosis; fewer than 10% of patients with metastatic disease survive beyond 5 years. The purpose of the study was to model the economic and health consequences of first-line treatments in adult patients with mRCC in stages III and IV from an institutional perspective. **METHODS:** A cost-effectiveness analysis was developed using a stochastic Markov modeling approach. The model simulates treatment costs, progression free-months (PFM) and overall survival (OS) in a three-year period among four possible health states (no new progression, death due to mRCC, history of new progression and death due to other causes). The model compared in a six-week cycles: sunitinib 50 mg/day vs. sorafenib, bevacizumab+IFN-alpha and IFN-alpha alone (baseline). Transition probabilities were obtained from previously published trials. Resource use and costs data were obtained from randomized hospital records at Hospital de Oncologia CMN "Siglo XXI" in Mexico City (n = 35). Both costs and effectiveness were discounted using a 3% annual rate. One-way and probabilistic sensitivity analyses were performed and acceptability curves were constructed. **RESULTS:** First-line treatment with sunitinib showed the highest PFM and OS (10.1 and 19.9 months) followed by bevacizumab+IFN-alpha (9.4 and 19.1 months); sorafenib(5.1 and 17.3 months) and IFN-alpha alone(4.72 and 16.35 months). Expected health care costs for sunitinib in the three-year follow-up period resulted in US$49,181; bevacizumab+IFN-alpha (US$95,363); sorafenib (US$50,265)